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DISTRIBUTION AND COMPOSITION OF EMPLOYEE EARNINGS AND HOURS, AUSTRALIA, MAY 1987, PRELIMINARY

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SUMMARY OF FINDINGS

This publication contains preliminary estimates from a sample survey conducted in May 1987. The survey is designed to provide statistics on the distribution of employees according to weekly earnings and hours, and on the composition of weekly earnings and hours for various categories of employees and principal occupations.

Final estimates will be published in *Distribution and Composition of Employee Earnings and Hours, Australia, May 1987* (6306.0).

The estimates contained in this publication were obtained from a sample survey of units selected from the ABS register of businesses.

Details of scope, definitions, reliability of estimates and tables of approximate standard errors, and names of related publications, can be found in the Explanatory Notes (see pages 11 to 15).

Introduction

In May 1987 average weekly earnings for all males were \$451.40 and \$297.10 for all females. For full-time adult non-managerial employees the estimates were \$466.60 (\$422.80 excluding overtime) for males and \$385.20 (\$375.00 excluding overtime) for females.

Distribution of Earnings

Diagrams 1.1 to 1.3 show separately for males and females the distribution of total and ordinary time earnings for selected categories of employees.

Diagram 1.1 shows the distribution of average weekly earnings for all males and for all females.

The differences in the distributions result, in part, from the differences in the composition of male and female employment. The high proportion of part-time employees (36.9 per cent) in total female employment has resulted in a correspondingly large proportion of females in the lower earnings ranges (since part-time employees generally earn less per week than full-time employees). The proportion of juniors is also higher for females (12.6 per cent) than for males (7.9 per cent) and the proportion of managerial employees is lower (5.7 per cent). These factors tend to spread the earnings distribution for females somewhat more across the lower end of the range, with a pronounced peak (i.e. a relatively high proportion of persons in a relatively small portion of this distribution range); the fall in numbers from the peak to the higher earnings ranges is quite marked. The distribution for males, on the other hand, is much less affected by part-time employment (8.6 per cent) and, with a higher proportion of managerial employees (15.2 per cent), is more sustained in the upper earnings ranges.

When the comparison between males and females is confined to full-time adult non-managerial employees (Diagram 1.2), thus removing the unequal effects which part-time, junior and managerial earnings have on earnings distributions, the distribution 'curves' are clearly more alike. The 'shoulder' in the female lower earnings ranges largely disappears, so that the graph line rises more sharply to a peak, like that for the males; in addition, the tapering off towards the upper ranges of the male distribution has become a little less gradual with the removal of managerial employees.

A significant element in the remaining differences between the male and female distributions is the disparity in overtime earnings of males (who average over \$40 a week) and females (about \$10 a week). When distributions for the same populations are plotted (Diagram 1.3) for ordinary time earnings (i.e. excluding overtime earnings), the curves show a much closer similarity. While the distribution for females still shows a more pronounced peak and a generally lower level of earnings, the shapes of the curves are very much the same.



DIAGRAM 1.1: DISTRIBUTION OF ALL EMPLOYEES BY AVERAGE WEEKLY TOTAL EARNINGS, AUSTRALIA, MAY 1987

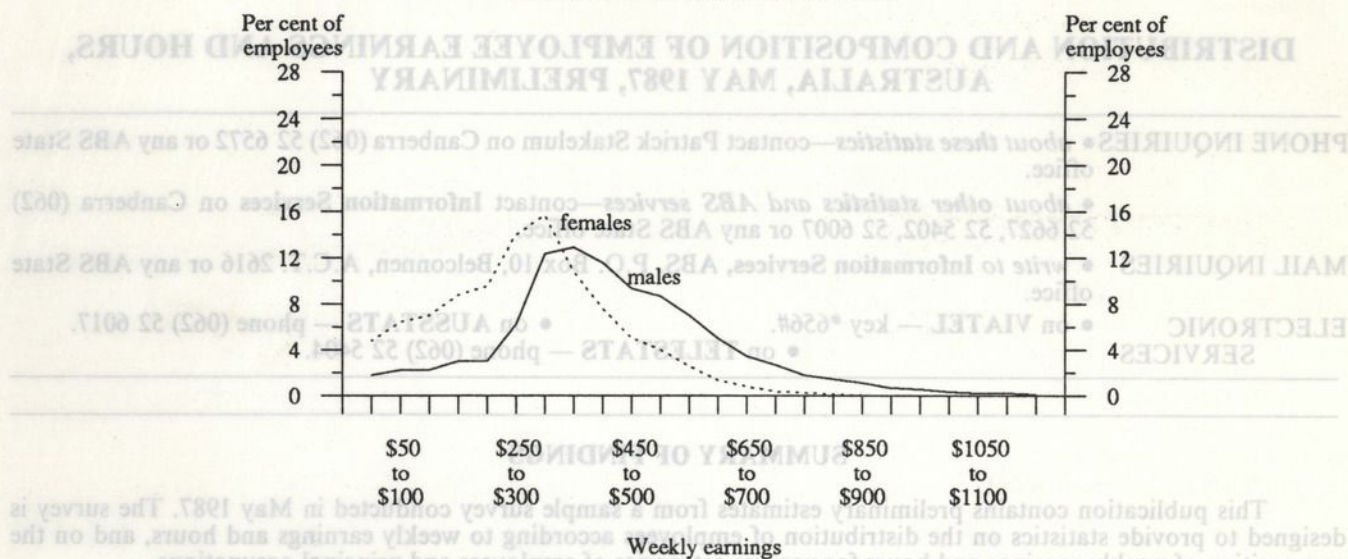


DIAGRAM 1.2: DISTRIBUTION OF FULL-TIME ADULT NON-MANAGERIAL EMPLOYEES BY AVERAGE WEEKLY TOTAL EARNINGS, AUSTRALIA, MAY 1987

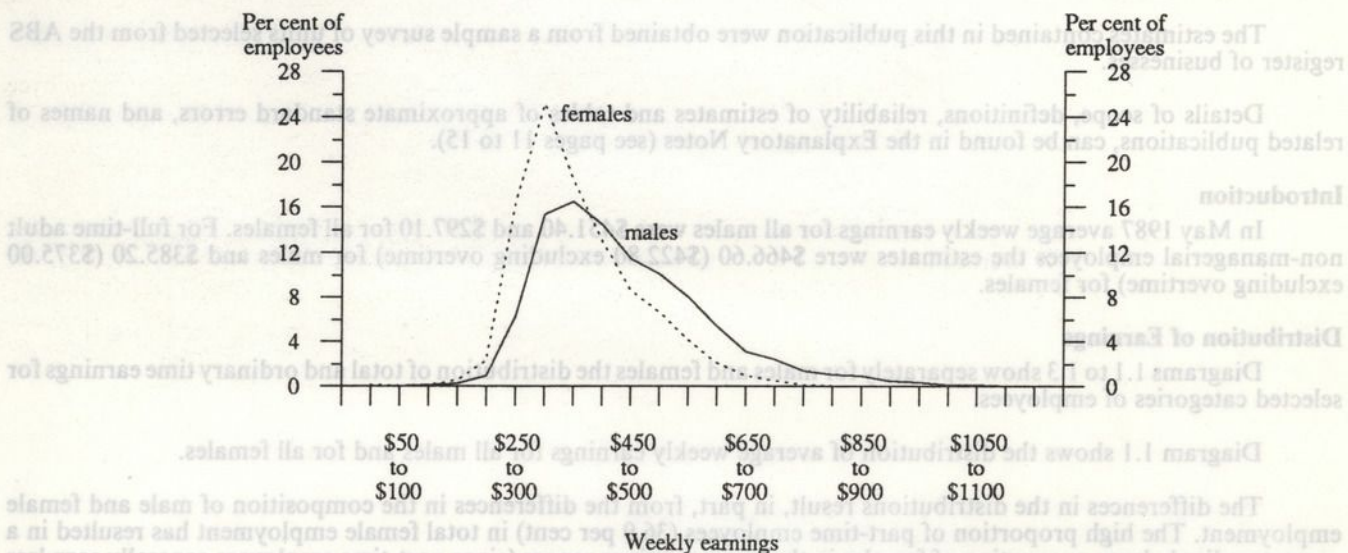
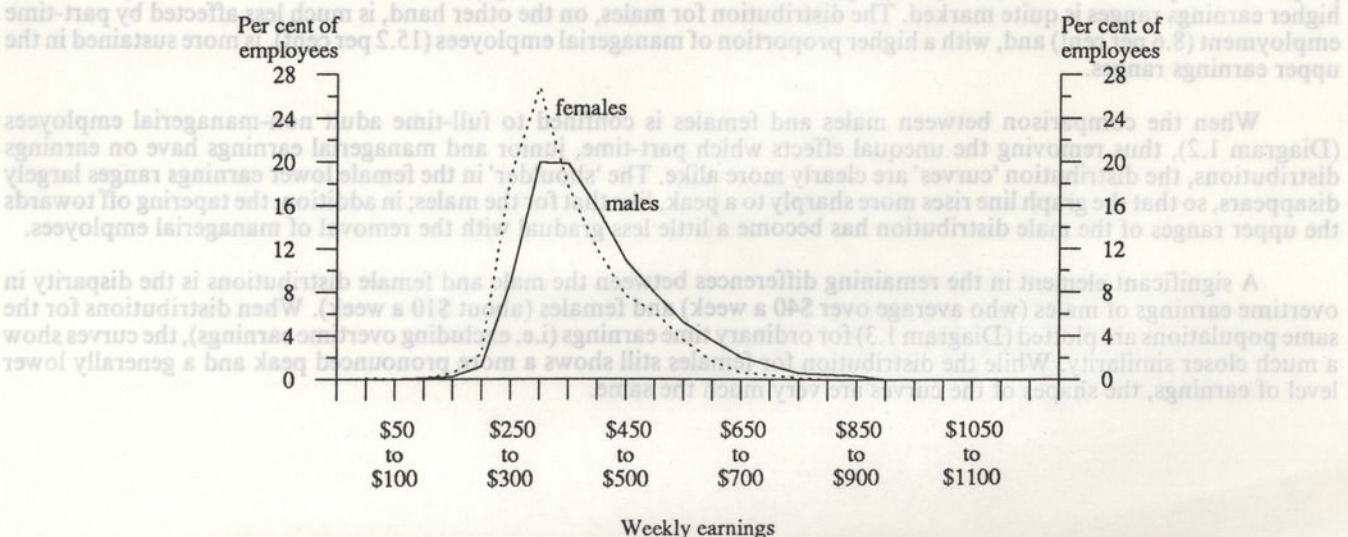


DIAGRAM 1.3: DISTRIBUTION OF FULL-TIME ADULT NON-MANAGERIAL EMPLOYEES BY AVERAGE WEEKLY ORDINARY TIME EARNINGS, AUSTRALIA, MAY 1987



The remaining differences in the level and distribution of earnings between males and females result from a number of factors. These include differences in the occupation and industry structure of male and female employment and, in some occupations where it is relevant, perhaps some differences in service or seniority increments and similar payments.

Of all male employees surveyed in May 1987, half were estimated to have earnings equal to or below \$423.90 (the median) and half equal to or above that figure. For females, the estimate of the median was \$298.00.

For full-time adult non-managerial employees, total weekly earnings were \$433.60 for males and \$362.20 for females. The more noticeable difference for females (\$64.20) between the medians for full-time adult non-managerial female employees and all female employees, is mainly accounted for by the significant proportion of part-time females who, as a group, have lower earnings.

Earnings by occupation

The distribution of earnings according to occupation groups is plotted in Diagrams 2 and 3, which show that

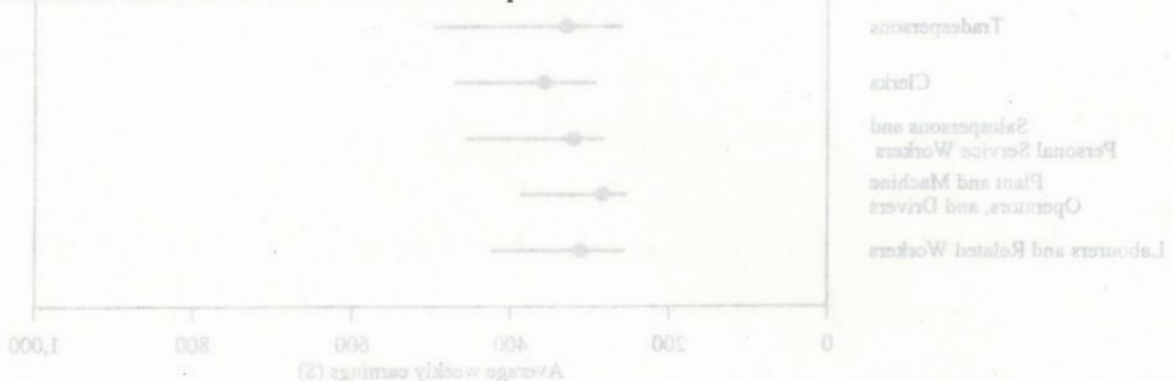
- relative differences in the levels of earnings generally correspond to the gradation of skill levels of the occupation classification.
- earnings of male plant and machine operators and drivers diverge from the above general relationship because of the higher overtime earnings compared to the average for all males.
- males have higher median earnings than females for each occupation group.
- there are significant differences between occupation groups in the breadth of earnings ranges — e.g. the middle 80 per cent of male clerks have earnings in the range \$313 to \$606 whereas for managers and administrators, the corresponding range is \$350 to \$953.

Diagram 3 illustrates the percentage increase in average weekly total earnings for all full-time adult employees between May 1986 and May 1987.

For males, above average increases were received by tradespersons (8.5 per cent), salespersons, etc. (7.3 per cent) and professionals (7.1 per cent).

For females, above average increases were received by tradespersons (14.5 per cent), para-professionals (11.7 per cent) and clerks (7.6 per cent). The increase in para-professionals can largely be attributed to the increases granted to nurses.

For both males and females there was no distinct pattern of increases related to skill level.



The dot indicates the median earnings for all the employees in the group (i.e. half the employees in the group earn less than that amount and half earn more). The length and location of the line shows the earnings range of the middle 80% of employees in the occupation group (i.e. omitting the top and bottom 10% of employees according to earnings).

DIAGRAM 2.1: DISTRIBUTION OF AVERAGE WEEKLY TOTAL EARNINGS OF FULL-TIME ADULT MALE EMPLOYEES, CLASSIFIED BY MAJOR OCCUPATION GROUP, AUSTRALIA, MAY 1987

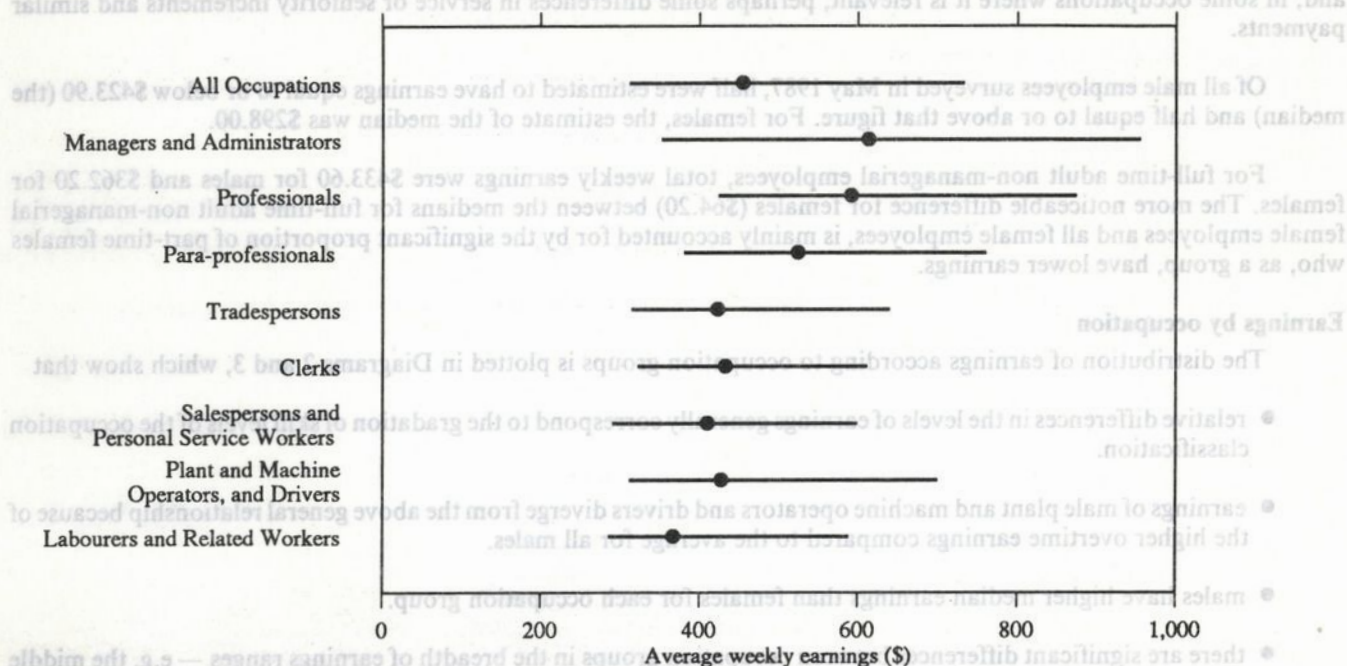
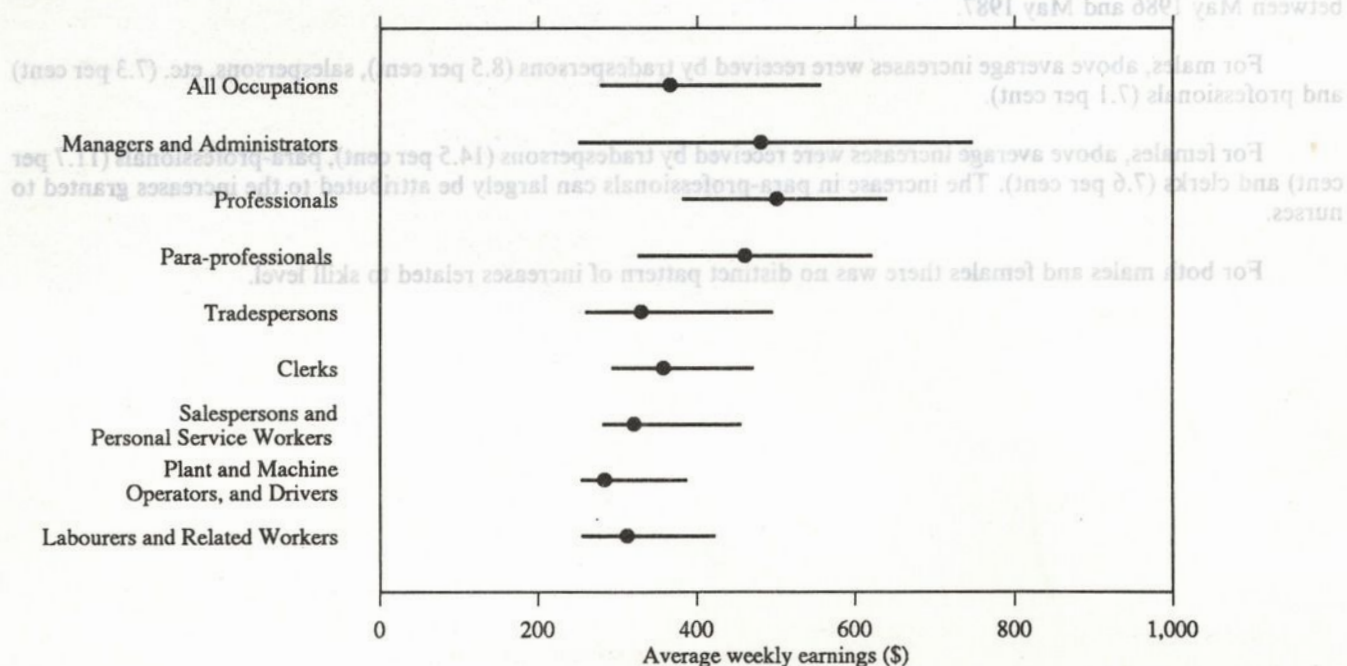


DIAGRAM 2.2: DISTRIBUTION OF AVERAGE WEEKLY TOTAL EARNINGS OF FULL-TIME ADULT FEMALE EMPLOYEES, CLASSIFIED BY MAJOR OCCUPATION GROUP, AUSTRALIA, MAY 1987



The length and location of the line shows the earnings range of the middle 80% of employees in the occupation group (i.e. omitting the top and bottom 10% of employees according to earnings).

The dot indicates the median earnings for all the employees in the group (i.e. half the employees in the group earn less than that amount and half earn more).

TABLE 1. DISTRIBUTION OF EMPLOYEES BY WEEKLY EARNINGS, AUSTRALIA, MAY 1987

DIAGRAM 3.1: PERCENTAGE CHANGE IN AVERAGE WEEKLY TOTAL EARNINGS FOR FULL-TIME ADULT MALE EMPLOYEES CLASSIFIED BY MAJOR OCCUPATION GROUP, AUSTRALIA, MAY 1986 TO MAY 1987

Source: Table 2, and Table 4 1986 Catalogue 6306.0

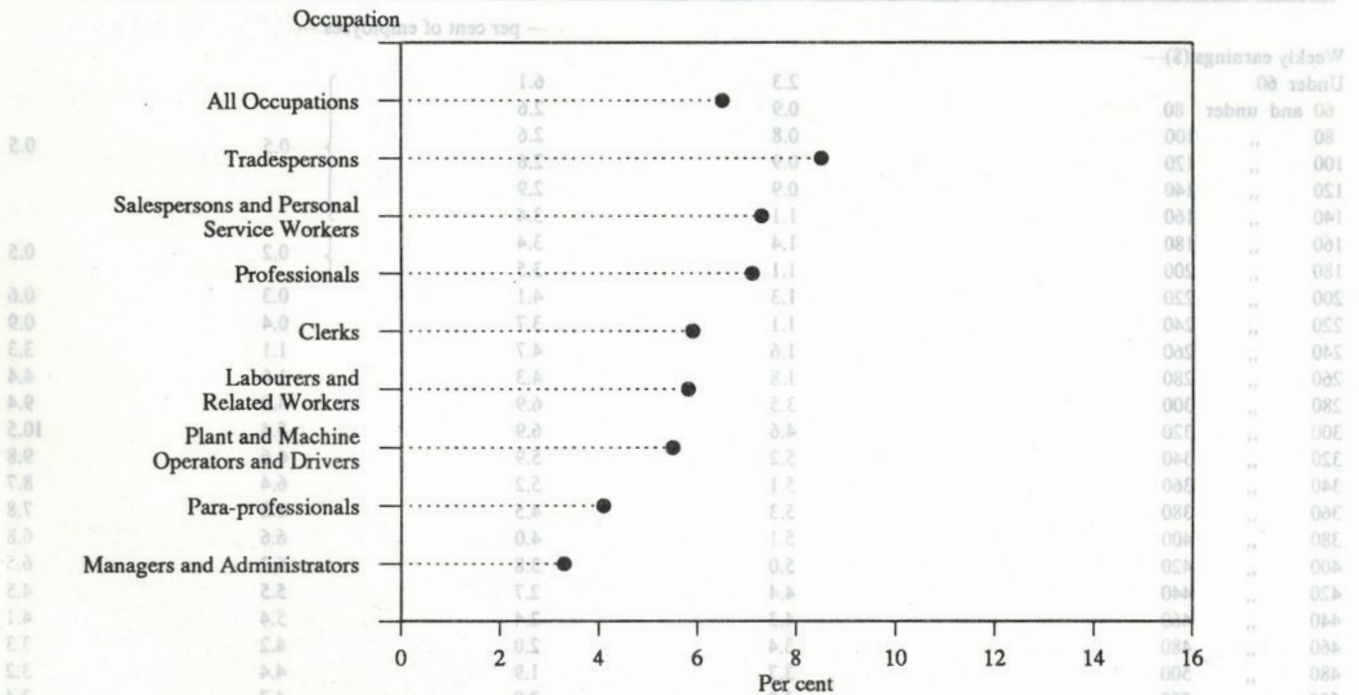


DIAGRAM 3.2: PERCENTAGE CHANGE IN AVERAGE WEEKLY TOTAL EARNINGS FOR FULL-TIME ADULT FEMALE EMPLOYEES CLASSIFIED BY MAJOR OCCUPATION GROUP, AUSTRALIA, MAY 1986 TO MAY 1987

Source: Table 2, and Table 4 1986 Catalogue 6306.0

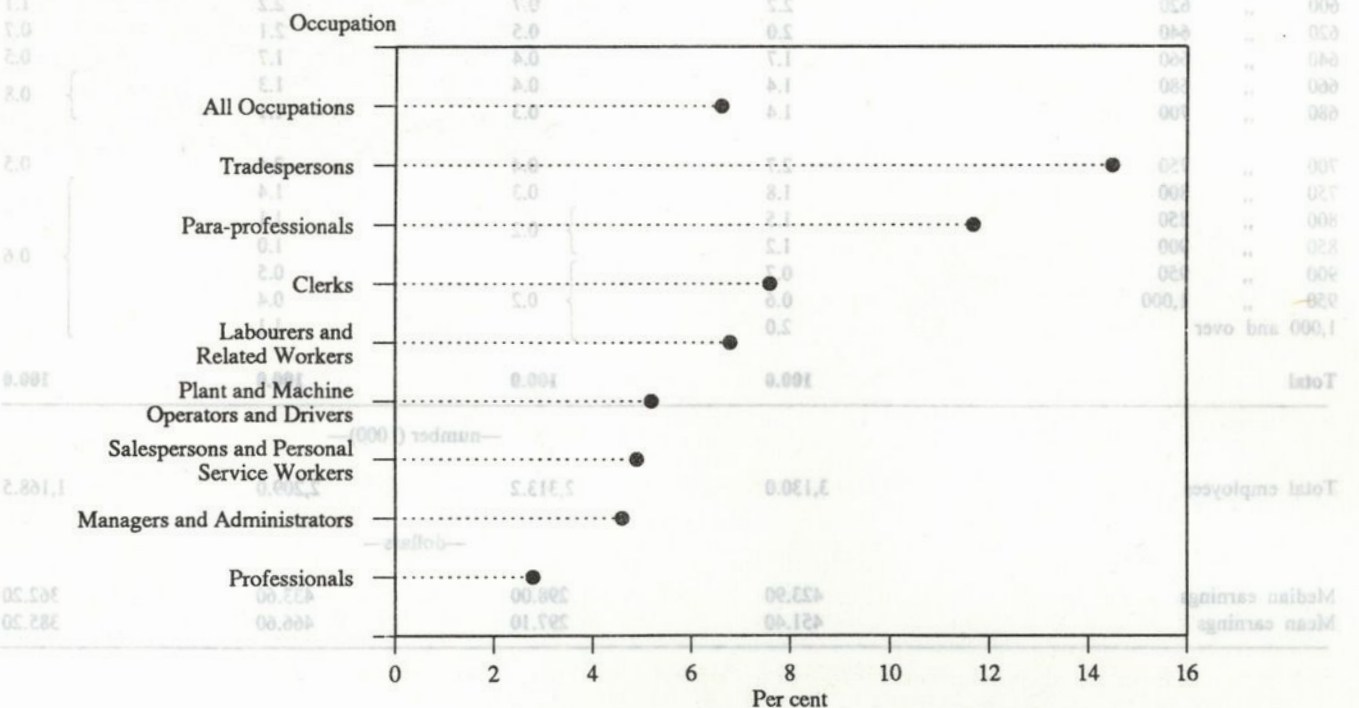


TABLE 1. DISTRIBUTION OF EMPLOYEES BY WEEKLY EARNINGS, AUSTRALIA, MAY 1987

			All employees		Full-time adult non-managerial employees	
			Males	Females	Males	Females
Weekly earnings (\$)—			— per cent of employees —			
Under 60			2.3	6.1		
60 and under 80			0.9	2.6		
80 " 100			0.8	2.6	0.5	0.5
100 " 120			0.9	2.6		
120 " 140			0.9	2.9		
140 " 160			1.1	3.4		
160 " 180			1.4	3.4	0.2	0.5
180 " 200			1.1	3.5		
200 " 220			1.3	4.1	0.3	0.6
220 " 240			1.1	3.7	0.4	0.9
240 " 260			1.6	4.7	1.1	3.3
260 " 280			1.8	4.3	1.6	4.4
280 " 300			3.5	6.9	4.0	9.4
300 " 320			4.6	6.9	5.4	10.5
320 " 340			5.2	5.9	6.6	9.8
340 " 360			5.1	5.2	6.4	8.7
360 " 380			5.3	4.5	6.8	7.8
380 " 400			5.1	4.0	6.6	6.8
400 " 420			5.0	3.8	6.2	6.5
420 " 440			4.4	2.7	5.5	4.5
440 " 460			4.3	2.4	5.4	4.1
460 " 480			3.4	2.0	4.2	3.3
480 " 500			3.7	1.9	4.4	3.2
500 " 520			3.8	2.0	4.3	3.4
520 " 540			3.1	1.2	3.6	1.9
540 " 560			3.3	1.3	3.9	2.2
560 " 580			3.1	1.4	3.5	2.2
580 " 600			2.4	0.7	2.8	1.1
600 " 620			2.2	0.7	2.2	1.1
620 " 640			2.0	0.5	2.1	0.7
640 " 660			1.7	0.4	1.7	0.5
660 " 680			1.4	0.4	1.3	
680 " 700			1.4	0.3	1.1	0.8
700 " 750			2.7	0.4	2.4	0.5
750 " 800			1.8	0.3	1.4	
800 " 850			1.5	0.2	1.1	
850 " 900			1.2		1.0	0.6
900 " 950			0.7		0.5	
950 " 1,000			0.6	0.2	0.4	
1,000 and over			2.0		1.1	
Total			100.0	100.0	100.0	100.0
			—number (' 000)—			
Total employees			3,130.0	2,313.2	2,209.0	1,168.5
			—dollars—			
Median earnings			423.90	298.00	433.60	362.20
Mean earnings			451.40	297.10	466.60	385.20

TABLE 2. AVERAGE WEEKLY TOTAL EARNINGS OF FULL-TIME ADULT EMPLOYEES AND ALL ADULT EMPLOYEES IN MAJOR OCCUPATION GROUPS, AUSTRALIA, MAY 1987

		Average weekly total earnings (\$)	
Code No.	Major Group(a)	Full-time adult employees	All adult employees
MALES			
1	Managers and administrators	636.80	633.80
2	Professionals	632.90	588.00
3	Para-professionals	556.90	544.70
4	Tradespersons	457.30	452.40
5	Clerks	453.10	444.60
6	Salespersons and personal service workers	435.90	381.20
7	Plant and machine operators, and drivers	472.00	456.50
8	Labourers and related workers	407.20	373.80
	All occupations	497.00	473.90
FEMALES			
1	Managers and administrators	495.80	456.20
2	Professionals	509.40	433.80
3	Para-professionals	467.20	389.60
4	Tradespersons	355.20	300.10
5	Clerks	371.20	322.90
6	Salespersons and personal service workers	346.20	238.60
7	Plant and machine operators, and drivers	305.00	287.10
8	Labourers and related workers	323.30	237.60
	All occupations	393.20	315.90

(a) See paragraphs 24-27 of the Explanatory Notes.

TABLE 3. AVERAGE WEEKLY ORDINARY TIME AND TOTAL EARNINGS AND HOURS OF FULL-TIME ADULT NON-MANAGERIAL EMPLOYEES IN MAJOR OCCUPATION GROUPS, AUSTRALIA, MAY 1987

Code No.	Major Group(a)	Average weekly ordinary time		Average weekly total(b)	
		Earnings(\$)	Hours	Earnings(\$)	Hours
MALES					
2	Professionals	565.30	37.3	581.40	38.0
3	Para-professionals	503.80	38.0	543.60	39.8
4	Tradespersons	402.20	38.0	457.60	41.1
5	Clerks	422.60	37.4	442.50	38.5
6	Salespersons and personal service workers	403.80	39.1	417.70	40.0
7	Plant and machine operators, and drivers	397.60	37.9	471.60	42.5
8	Labourers and related workers	358.40	37.9	406.90	41.1
	All occupations(c)	422.80	37.9	466.60	40.5
FEMALES					
2	Professionals	493.30	37.0	498.90	37.2
3	Para-professionals	453.30	38.2	462.80	38.8
4	Tradespersons	328.40	38.2	351.50	39.9
5	Clerks	361.40	37.6	370.80	38.2
6	Salespersons and personal service workers	335.00	38.6	343.40	39.3
7	Plant and machine operators, and drivers	290.80	37.6	305.10	38.7
8	Labourers and related workers	306.00	37.8	323.00	39.1
	All occupations(c)	375.00	37.7	385.20	38.4

(a) See paragraph 24-27 of the Explanatory Notes. (b) Includes overtime earnings and hours. (c) Includes occupation groups not shown separately above.

TABLE 4. COMPOSITION OF AVERAGE WEEKLY EARNINGS AND HOURS OF FULL-TIME NON-MANAGERIAL EMPLOYEES, SECTORS, AUSTRALIA, MAY 1987

Average weekly total earnings (\$)									
Average weekly ordinary time earnings						Average weekly hours paid for			
	Award or agreed base rate of pay(a)	Payment by measured result (a)	Over-award and other pay(a)	Total ordinary time	Overtime	Total	Ordinary time	Overtime	Total
PRIVATE									
Adult—									
Males	382.20	9.90	14.90	406.90	53.80	460.80	38.1	3.3	41.4
Females	336.90	2.20	9.40	348.60	12.20	360.80	38.0	0.9	38.9
Junior—									
Males	208.00	1.40	3.70	213.20	16.20	229.30	38.4	1.7	40.0
Females	205.40	*	3.40	209.40	5.50	214.90	38.5	0.6	39.1
PUBLIC									
Adult—									
Males	444.50	1.20	2.90	448.60	27.60	476.10	37.5	1.5	39.0
Females	415.00	* 0.60	0.60	415.70	7.20	422.90	37.2	0.4	37.7
Junior—									
Males	239.00	*	*	240.50	6.80	247.30	37.7	0.6	38.4
Females	238.10	0.00	*	238.20	*	244.30	37.4	*	37.9
TOTAL									
Adult—									
Males	405.80	6.60	10.40	422.80	43.90	466.60	37.9	2.6	40.5
Females	367.60	1.40	6.00	375.00	10.20	385.20	37.7	0.7	38.4
Junior—									
Males	213.00	1.20	3.30	217.60	14.70	232.20	38.3	1.5	39.8
Females	211.20	*	2.80	214.50	5.60	220.20	38.3	0.6	38.9

(a) For definitions see the Explanatory Notes.

TABLE 5. AVERAGE WEEKLY TOTAL EARNINGS OF FULL-TIME ADULT MANAGERIAL EMPLOYEES, SECTORS, AUSTRALIA, MAY 1987

Average weekly total earnings(\$)			
	Males	Females	Persons
Private	603.20	443.90	572.30
Public	779.40	662.10	761.20
Total	640.60	481.10	610.90

(a) See paragraph 24-27 of the Explanatory Notes. (b) Includes overtime earnings and hours. (c) Includes occupation groups not shown separately above.

TABLE 6. AVERAGE WEEKLY ORDINARY TIME AND TOTAL EARNINGS AND HOURS OF FULL-TIME NON-MANAGERIAL EMPLOYEES, INDUSTRIES, AUSTRALIA, MAY 1987

Industry	Average weekly ordinary time		Average weekly total(a)	
	Earnings(\$)	Hours	Earnings(\$)	Hours
ADULT MALES				
Mining	608.60	37.3	716.90	42.7
Manufacturing	388.30	37.7	449.60	41.5
Food, beverages and tobacco	378.10	37.9	444.80	42.2
Textiles; clothing and footwear	343.90	38.1	400.30	42.2
Paper, paper products, printing and publishing	426.70	37.4	470.40	39.8
Chemical, petroleum and coal products	444.40	37.4	499.70	40.3
Metal products, machinery and equipment—				
Basic metal products	446.80	37.6	529.60	42.3
Fabricated metal products; other machinery and equipment	378.30	37.8	435.90	41.4
Transport equipment	386.40	37.7	449.70	41.5
Total metal products, etc.	394.10	37.7	458.30	41.6
Other manufacturing	357.40	37.8	417.90	41.7
Electricity, gas and water	445.00	37.0	475.00	38.7
Construction	437.20	38.0	504.20	41.9
Wholesale trade	394.20	38.4	429.50	40.7
Retail trade	347.90	39.3	366.80	40.6
Transport and storage	418.40	38.5	484.20	42.4
Communication	417.30	36.8	442.60	38.1
Finance, property and business services	449.40	38.1	470.90	39.4
Public administration and defence	424.40	37.2	441.60	38.2
Community services	485.20	37.7	505.40	38.7
Recreation, personal and other services	380.90	38.4	409.60	40.3
Total all industries	422.80	37.9	466.60	40.5
ADULT FEMALES				
Mining	435.50	38.2	457.70	39.7
Manufacturing	322.30	37.7	342.30	39.2
Food, beverages and tobacco	330.80	37.6	362.90	39.9
Textiles; clothing and footwear	292.00	37.8	307.40	39.1
Paper, paper products, printing and publishing	350.20	37.5	374.60	39.2
Chemical, petroleum and coal products	360.40	36.8	372.30	37.6
Metal products, machinery and equipment—				
Basic metal products	385.70	37.8	407.80	39.3
Fabricated metal products; other machinery and equipment	324.40	38.0	340.50	39.2
Transport equipment	319.70	37.5	341.40	39.1
Total metal products, etc.	329.50	37.9	347.60	39.2
Other manufacturing	319.40	37.5	338.60	39.0
Electricity, gas and water	387.20	36.6	396.50	37.1
Construction	354.40	37.9	356.70	38.0
Wholesale trade	346.90	38.2	358.60	39.1
Retail trade	306.40	38.6	316.60	39.3
Transport and storage	388.60	38.6	416.20	40.4
Communication	365.80	36.5	377.30	37.2
Finance, property and business services	375.00	37.8	383.00	38.4
Public administration and defence	388.60	36.5	395.60	37.0
Community services	424.90	37.5	429.80	37.8
Recreation, personal and other services	333.60	38.8	345.10	39.6
Total all industries	375.00	37.7	385.20	38.4

(a) Includes overtime earnings and hours.

TABLE 6. AVERAGE WEEKLY ORDINARY TIME AND TOTAL EARNINGS AND HOURS OF FULL-TIME NON-MANAGERIAL EMPLOYEES, INDUSTRIES, AUSTRALIA, MAY 1987—continued

Industry	Average weekly ordinary time		Average weekly total(a)	
	Earnings(\$)	Hours	Earnings(\$)	Hours
JUNIOR MALES				
Mining	338.50	36.4	379.70	39.6
Manufacturing	210.00	37.8	224.40	39.3
Food, beverages and tobacco	229.50	37.8	245.40	39.5
Textiles; clothing and footwear	198.00	36.9	212.20	38.5
Paper, paper products, printing and publishing	217.10	37.0	235.50	38.5
Chemical, petroleum and coal products	*	*	*	*
Metal products, machinery and equipment—				
Basic metal products	266.40	37.2	278.10	38.2
Fabricated metal products; other machinery and equipment	196.90	38.0	214.90	40.1
Transport equipment	226.60	37.8	238.90	38.9
Total metal products, etc.	215.80	37.8	231.20	39.4
Other manufacturing	186.10	38.1	196.90	39.6
Electricity, gas and water	254.50	36.9	260.40	37.4
Construction	246.90	38.4	275.40	40.4
Wholesale trade	219.80	38.8	234.20	40.3
Retail trade	185.00	39.0	198.10	40.7
Transport and storage	233.90	38.6	259.10	41.3
Communication	249.40	36.7	254.50	37.1
Finance, property and business services	234.20	38.3	240.60	38.9
Public administration and defence	225.10	37.4	233.70	38.3
Community services	233.20	37.8	236.30	38.1
Recreation, personal and other services	212.80	38.9	228.30	40.6
Total all industries	217.60	38.3	232.20	39.8
JUNIOR FEMALES				
Mining	*	*	*	*
Manufacturing	213.90	38.0	221.50	38.8
Food, beverages and tobacco	191.20	37.7	211.00	39.7
Textiles; clothing and footwear	210.60	37.9	214.70	38.5
Paper, paper products, printing and publishing	210.70	37.7	216.20	38.3
Chemical, petroleum and coal products	*	*	*	*
Metal products, machinery and equipment—				
Basic metal products	*	*	*	*
Fabricated metal products; other machinery and equipment	246.20	38.5	256.90	39.5
Transport equipment	*	*	*	*
Total metal products, etc.	245.00	38.3	254.00	39.2
Other manufacturing	199.70	38.2	202.40	38.5
Electricity, gas and water	255.60	36.7	257.20	36.8
Construction	204.80	38.5	208.80	39.0
Wholesale trade	228.90	38.9	236.60	39.5
Retail trade	196.60	38.7	202.10	39.4
Transport and storage	235.80	38.4	245.30	39.5
Communication	*	*	*	*
Finance, property and business services	223.50	38.2	227.80	38.6
Public administration and defence	223.60	36.5	236.90	37.8
Community services	234.80	37.9	238.80	38.2
Recreation, personal and other services	193.60	39.0	198.10	39.6
Total all industries	214.50	38.3	220.20	38.9

(a) Includes overtime earnings and hours.

EXPLANATORY NOTES

Scope of the survey

All wage and salary earners who received pay for the reference period are represented in the survey, except:

- members of the Australian permanent defence forces;
- employees of enterprises primarily engaged in agriculture, forestry, fishing and hunting;
- employees in private households employing staff;
- employees of overseas embassies, consulates, etc.;
- employees based outside Australia;
- employees on workers' compensation who are not paid through the payroll.

Also excluded are the following persons who are not regarded as employees for the purposes of this survey:

- directors who are not paid a salary;
- proprietors/partners of unincorporated businesses; and
- self-employed persons such as subcontractors, owner/drivers, consultants and persons paid solely by commission without a retainer.

Survey design

2. A sample of approximately 9,100 employers is selected from the ABS register of businesses to ensure adequate State and industry representation. The statistical unit for the survey comprises all activities of an enterprise in a particular State or Territory. Each statistical unit is classified to an industry which reflects the predominant activity of the enterprise in the State or Territory. In a small number of cases where an enterprise has significant employment in more than one industry, a separate statistical unit is created for each industry. The statistical units are stratified by State, public/private sector, industry and size of employment, and a simple random sample is selected from each stratum.

3. Employers with fewer than 10 employees are required to complete details for every employee, while those with 10 or more employees are required to select a random sample of their employees in accordance with instructions supplied by the ABS. Data for approximately 73,000 employees are obtained in the survey.

4. Although the sample is not designed specifically to provide estimates of numbers of employees, it is estimated that 3,130,000 male and 2,313,200 female employees are within the scope of the survey. These and other estimates of numbers of employees included in this publication should not be taken as measures of total employment in the categories indicated.

Definitions

5. *Reference period* for the survey refers to the last pay period ending on or before 15 May 1987.

6. *Employees* refers to all wage and salary earners (as defined in paragraph 1) who received pay for any part of the reference period.

7. *Sector*. Public sector includes local government authorities and all government departments and agencies created by, or reporting to, the Commonwealth or State Parliaments. All remaining employees are classified as private sector.

8. *Full-time employees* are permanent, temporary and casual employees who normally work the agreed or award hours for a full-time employee in their occupation; if agreed or award hours do not apply, employees are regarded as full-time if they ordinarily work 35 hours or more per week.

9. *Adult employees* are employees 21 years of age or over and those employees who, although under 21 years of age, are paid at the full adult rate for their occupation. Junior employees are all other employees.

10. *Managerial employees* are managerial, executive, professional and higher supervisory staff, generally defined as those employees who are ineligible to receive payment for overtime, or although subject to payment for overtime, are in charge of a significant number of employees in a separate establishment. *Non-managerial employees* are those who are not managerial employees as defined.

11. *Award pay or agreed base rate of pay* refers to the award pay or agreed rate of pay for ordinary time hours paid for. For employees covered by an award it includes all allowances (dirt, height, tool, etc.) and penalty payments (e.g. shift loadings) specified in the award. It excludes overaward pay and service increments not specified in the award. For employees not covered by an award, agreed base rate of pay is the agreed wage for ordinary time hours paid for.

12. *Overaward pay* refers to amounts of ordinary time pay (regular or otherwise) that are over the award (e.g. attendance, good time-keeping, profit-sharing, etc.). It excludes payments in the form of a reimbursement for expenses incurred whilst carrying out the employer's business (e.g. payments from petty cash).

13. *Payment by measured result* refers to earnings which vary according to measured performance (e.g. piecework, production and task bonuses, commission).

14. *Other pay* refers to ordinary time earnings not included in award or base rate of pay, overaward pay or payment by measured result. It excludes payments in the form of a reimbursement for expenses incurred whilst carrying out the employer's business (e.g. payments from petty cash).

15. *Weekly ordinary time earnings of employees* refers to one week's earnings for the reference period attributable to award, standard or agreed hours of work. It is calculated before taxation and any other deductions (e.g. superannuation, board and lodging) have been made. Included in ordinary time earnings are award payments, overaward payments, penalty payments, shift and other allowances; commissions and retainers; bonuses and similar payments related to the reference period; payments under incentive or piecework; payments under profit sharing schemes normally paid each pay period; payments for leave taken during the reference period; all workers' compensation payments made through the payroll; and salary payments made to directors. Excluded are overtime payments, retrospective pay, pay in advance, leave loadings, severance pay, termination and redundancy payments and other payments not related to the reference period.

16. *Weekly overtime earnings of employees* refers to that part of weekly total earnings for hours paid for in excess of award, standard or agreed hours of work.

17. *Weekly total earnings of employees* is equal to weekly ordinary time earnings plus weekly overtime earnings.

18. *Weekly hours paid for* refers to the hours for which payment was made. It comprises overtime hours and ordinary time hours. For employees paid other than weekly, hours were converted to a weekly basis. For employees who began or ceased work, or were absent without pay for any reason during the reference period, only the hours actually paid for were included. Where agreed hours of work were less than award hours, hours were based on agreed hours. Hours of work were not reported for managerial employees.

19. *Overtime hours* refers to hours in excess of award, standard or agreed hours of work.

20. *Ordinary time hours* refers to award, standard or agreed hours of work. It includes stand-by or reporting time which are part of standard hours of work, and that part of paid annual leave, paid sick leave and long service leave taken during the reference period.

21. *Mean (or average) earnings or hours* refers to the amount obtained by dividing the total earnings or hours of a group (e.g. full-time employees) by the number of employees in that group.

22. *Median earnings or hours* refers to the amount which divides the distribution into two equal groups of employees, one half having amounts below the median and the other half having amounts above it.

23. Industry is classified according to the *Australian Standard Industrial Classification (ASIC) 1983 Edition, Volume 1 — The Classification (1201.0)*. The following table shows details of the ASIC industries used in the survey.

ASIC code		
Division	Sub-Division	Title
B		Mining
C		Manufacturing—
	21	Food, beverages and tobacco
	23,24	Textiles; clothing and footwear
	26	Paper, paper products, printing and publishing
	27	Chemical, petroleum and coal products
	29	Basic metal products
	31,33	Fabricated metal products; other machinery and equipment
	32	Transport equipment
	25,28,34	Other manufacturing(a)
D		Electricity, gas and water
E		Construction
F	47	Wholesale trade
	48	Retail trade
G		Transport and storage
H		Communication
I		Finance, property and business services
J		Public administration and defence(b)
K		Community services
L		Recreation, personal and other services(c)
		Total

(a) Includes wood, wood products and furniture (subdivision 25); glass, clay and other non-metallic mineral products (subdivision 28); leather, rubber and plastic products and manufacturing not elsewhere classified (subdivision 34). (b) Excludes permanent defence forces. (c) Excludes private households employing staff (subdivision 94).

NOTE: Division A, (Agriculture, Forestry, Fishing and Hunting) is excluded from the survey.

24. Occupation is classified to the Australian Standard Classification of Occupations (ASCO).

25. ASCO has been developed over a period of several years by the Department of Employment, Education and Training and the Australian Bureau of Statistics (ABS). It is a skill-based classification of occupations developed in Australia to provide a systematic classification and description of occupations in the labour market.

26. The purpose of ASCO is to identify a set of occupations covering all jobs in the Australian economy; to define those occupations in terms of a number of selected attributes; and to group those occupations on the basis of their similarity into successively broader categories for purposes of statistical description and analysis. The classification which has been developed is based on a 'kind-of-work' criterion with an emphasis on skill level (length and type of training) and skill specialisation (e.g. subject matter knowledge). The determination of the skill level of each occupation in the classification was based on data from employer groups, trade unions, educational institutions and well-informed individuals. The skill specialisations identified within each set of broad skill levels have been determined by an examination of the primary tasks of all occupations within each skill level.

27. Details of ASCO can be found in *ASCO, First Edition Statistical Classification (1222.0)* which was released in September 1986. Also released at that time was *Information Paper : ASCO — Australian Standard Classification of Occupations : Introduction to ASCO Publications — First Edition (1221.0)*.

Comparability of results

28. Care should be taken when comparing the results of this survey with the quarterly series *Average Weekly Earnings, States and Australia* (6302.0) as a different sample design and survey methodology are used.

29. Considerable care is taken in questionnaire design and in the instructions given to employers on how to select samples of their employees. All survey returns are subjected to careful editing to detect reporting errors, inconsistencies and transcription errors. In addition, the results are checked against comparable statistics from the ABS's quarterly survey of Average Weekly Earnings. Ultimately, however, the quality of survey results depends on the quality of the information provided by survey respondents and adherence to specified procedures. These procedures, it should be noted, do not necessarily ensure that all of the employee subgroups of interest to users are accurately represented in the sample.

Reliability of estimates

30. As the estimates in this publication are based on information relating to a sample of employers and employees, rather than a full enumeration, they are subject to sampling variability. That is, they may differ from the figures that would have been produced if the information had been obtained from all employers and all employees. This difference, called *sampling error*, should not be confused with inaccuracy that may occur because of imperfections in reporting by respondents or in processing by the ABS. Such inaccuracy is referred to as *non-sampling error* and may occur in any enumeration whether it be a full count or sample. Efforts have been made to reduce non-sampling error by careful design of questionnaires, detailed checking of returns and quality control of processing.

31. The sampling error associated with any estimate can be estimated from the sample results. One measure of sampling error is given by the *standard error*, which indicates the degree to which an estimate may vary from the value that would have been obtained from a full enumeration (the 'true' figure). There are about two chances in three that a sample estimate differs from the true value by less than one standard error, and about nineteen chances in twenty that the difference will be less than two standard errors.

32. The figures in Table A provide an indication of the magnitude of the standard error of estimates of numbers of persons (distribution of weekly earnings) shown in Table 1. An example of the use of Table A is as follows: the estimate for all male employees in the earnings range \$200 to \$220 is 1.3 per cent of the total number of male employees (see Table 1). This represents approximately 40,000 males. Table A shows the standard error of the Australian estimate of 40,000 to be 7 per cent or 2,800 employees. There are about two chances in three that a complete collection would give a figure within the range 37,200 to 42,800 and about nineteen chances in twenty that the figure would be within the range 34,400 to 45,600.

33. Another measure of the sampling error is the *relative standard error*, which is obtained by expressing the standard error as a percentage of the estimate. Table B shows approximate relative standard errors for a selection of average weekly earnings estimates.

34. Table B indicates the relative standard error of estimates of averages (composition of average weekly earnings). An example of the use of Table B is as follows: Table 4 shows that average overtime earnings of adult male full-time non-managerial employees (Australia) as \$53.80. Table B shows the approximate relative standard error for this estimate to be 3.4 per cent (i.e. about \$1.80). There are about two chances in three that a complete collection would give a figure within the range \$52.00 to \$55.60 and about nineteen chances in twenty that the figure would be within the range of \$50.20 to \$57.40.

35. Generally, estimates with a relative standard error of greater than 15 per cent have not been included in the tables in this publication. For occupations, estimates with a relative standard error greater than 7 per cent have not been shown. Estimates relating to overtime earnings and hours, payment by measured result, overaward and other pay, and part-time employees have been published if the relative standard error is less than 20 per cent (or less than 30 per cent if the standard error is not greater than \$1.00 or 0.5 hours).

36. The relative standard errors relating to estimates of the private or public sector only are generally slightly higher than those for the private and public sectors combined.

37. The relative standard errors relating to estimates of average weekly ordinary time hours and average weekly total hours are generally much lower than the corresponding figures shown in the table for average weekly ordinary time earnings and average weekly total earnings.

Related publications

38. Users may also wish to refer to the following publications which are available on request:

Information Paper: New Statistical Series: Employment, Average Weekly Earnings, Job Vacancies and Overtime (6256.0)

Distribution and Composition of Employee Earnings and Hours, Australia (6306.0) — issued annually

Average Weekly Earnings, Australia (Preliminary) (6301.0) and final publication *Average Weekly Earnings, States and Australia* (6302.0) — issued quarterly

Average Earnings and Hours of Employees, Australia (6304.0) — issued annually

Weekly Earnings of Employees (Distribution), Australia, August (Preliminary) (6309.0) and final publication (6310.0), containing results of household surveys conducted annually

Overtime, Australia (6330.0) — issued quarterly

Award Rates of Pay Indexes, Australia (6312.0) — issued monthly

Employed Wage and Salary Earners, Australia (6248.0) — issued quarterly

The Labour Force, Australia (6203.0) — issued monthly

Occasional Paper No. 1986/1: Statistics on Wages, Earnings, Income and Labour Costs — A Guide to Their Concepts, Measurements and Usage.

39. Current publications produced by the ABS are listed in the *Catalogue of Publications, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

Unpublished statistics

40. In some cases, the ABS can also make available information which is not published. This information may be made available in one or more of the following forms: microfiche, photocopy, data tape, computer printout, or clerically-extracted tabulation. Generally, a charge is made for providing unpublished information. Inquiries should be made to the officer whose name appears in the *Phone Inquiries* section of the inquiries box at the front of this publication, or to Information Services in the nearest ABS office.

Symbols and other usages

* subject to sampling variability too high for most practical uses (see paragraphs 30-37).

41. Estimates of earnings shown in the tables are rounded to the nearest 10 cents, and those of average weekly hours paid for are rounded to the first decimal place.

42. Where estimates have been rounded, discrepancies may occur between sums of the component items and totals.

Electronic services

VIATEL. Key *656# for selected current economic, social and demographic statistics.

AUSSTATS. Thousands of up-to-date time series are available on this ABS on-line service through CSIRONET.

For further information phone the AUSSTATS Help Desk on (062) 52 6017.

TELESTATS. This service provides foreign trade statistics tailored to users' requirements.

Further information is available on (062) 52 5404.

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TABLE A. APPROXIMATE STANDARD ERRORS OF ESTIMATES OF NUMBERS OF PERSONS, AUSTRALIA, MAY 1987

	Size of estimate (persons)						
Standard error	5,000	10,000	20,000	30,000	40,000	60,000	100,000
Number	800	1,200	1,800	2,400	2,800	3,600	4,000
Per cent	16	12	9	8	7	6	4

TABLE B. APPROXIMATE RELATIVE STANDARD ERRORS OF AVERAGE WEEKLY EARNINGS OF FULL-TIME NON-MANAGERIAL EMPLOYEES, AUSTRALIA, MAY 1987
(per cent)

	Average weekly total earnings \$									
	Average weekly ordinary time earnings					Average weekly hours paid for				
	Award or agreed base rate of pay(a)	Payment by measured result (a)	Over- award and other pay(a)	Total ordinary time	Overtime	Total	Ordinary time	Overtime	Total	
Adult—										
Males	0.4	4.6	3.9	0.3	3.4	0.4	0.1	3.4	0.2	
Females	0.4	11.8	5.8	0.4	4.6	0.4	0.1	4.7	0.1	
Junior—										
Males	1.3	22.8	9.2	1.3	16.2	2.1	0.2	10.0	0.4	
Females	0.9	(b)	10.2	0.9	13.5	1.0	0.2	13.0	0.3	

(a) For definitions see the Explanatory Notes. (b) Relative standard error greater than 30 per cent, or between 20 and 30 per cent and an actual standard error of more than \$1.00.

TABLE C. APPROXIMATE RELATIVE STANDARD ERRORS OF AVERAGE WEEKLY OVERTIME AND AVERAGE WEEKLY TOTAL EARNINGS OF FULL-TIME NON-MANAGERIAL EMPLOYEES, INDUSTRIES, AUSTRALIA, MAY 1987

Industry	Adults				Juniors			
	Males		Females		Males		Females	
	Average weekly overtime earnings	Average weekly total earnings	Average weekly overtime earnings	Average weekly total earnings	Average weekly overtime earnings	Average weekly total earnings	Average weekly overtime earnings	Average weekly total earnings
Mining	5.0	1.2	(a)	4.1	(a)	4.2	(a)	10.9
Manufacturing	3.5	0.7	7.5	0.9	10.1	2.0	(a)	2.9
Food, beverages and tobacco	6.6	1.2	18.4	1.9	(a)	4.7	(a)	7.3
Textiles; clothing and footwear	15.8	3.6	15.7	1.5	(a)	6.2	(a)	3.3
Paper, paper products, printing and publishing	8.7	1.5	(a)	2.3	(a)	5.6	(a)	7.8
Chemical, petroleum and coal products	10.5	2.0	18.2	1.9	(a)	8.9	(a)	4.0
Metal products, machinery and equipment—								
Basic metal products	7.6	1.6	(a)	3.4	(a)	3.8	(a)	3.5
Fabricated metal products; other machinery and equipment	10.4	1.9	10.0	1.2	(a)	3.9	(a)	7.0
Transport equipment	5.0	1.0	13.6	2.3	18.7	4.5	(a)	12.7
Total metal products, etc.	5.5	1.1	8.2	1.0	14.5	2.9	(a)	6.0
Other manufacturing	8.4	1.7	(a)	2.2	18.9	3.5	(a)	6.3
Electricity, gas and water	5.6	0.6	(a)	1.2	(a)	3.9	(a)	3.3
Construction	17.7	2.1	(a)	3.4	(a)	6.7	(a)	4.8
Wholesale trade	19.3	1.5	12.1	1.8	(a)	3.9	(a)	2.9
Retail trade	14.0	2.3	18.5	0.9	13.5	2.0	(a)	1.6
Transport and storage	4.2	1.0	15.1	1.7	17.3	3.6	(a)	3.7
Communication	19.6	1.0	11.9	1.2	(a)	5.5	(a)	5.4
Finance, property and business services	14.3	1.2	10.4	1.4	(a)	2.9	(a)	1.7
Public administration and defence	8.0	1.0	14.2	1.0	(a)	3.2	(a)	4.3
Community services	6.7	0.6	12.3	0.4	(a)	3.3	(a)	2.1
Recreation, personal and other services	9.2	1.6	15.7	1.2	(a)	6.3	(a)	5.1
Total all industries	3.4	0.4	4.6	0.4	16.2	2.1	13.5	1.0

(a) Relative standard error greater than 30 per cent, or between 20 and 30 per cent and an actual standard error of more than \$1.00.

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TABLE C. APPROXIMATE RELATIVE STANDARD ERRORS OF AVERAGE WEEKLY OVERTIME AND AVERAGE WEEKLY TOTAL EARNINGS OF FULL-TIME NON-MANAGERIAL EMPLOYEES, INDUSTRIES, AUSTRALIA, MAY 1987

Industries	Adults				Juniors			
	Average weekly earnings	Average weekly overtime	Total earnings	Relative standard error	Average weekly earnings	Average weekly overtime	Total earnings	Relative standard error
Mining	2.0	1.2	3.2	(a)	4.1	0.9	5.0	(a)
Manufacturing	3.2	0.7	3.9	(a)	10.1	2.0	12.1	(a)
Food, beverages and tobacco	6.6	1.2	7.8	(a)	1.9	0.2	2.1	(a)
Textiles, clothing and footwear	12.8	2.6	15.4	(a)	1.2	0.2	1.4	(a)
Paper, paper products, printing and publishing	8.7	1.2	9.9	(a)	2.3	0.2	2.5	(a)
Chemical, petroleum and coal products	10.2	2.0	12.2	(a)	1.9	0.2	2.1	(a)
Metal products, machinery and equipment	7.6	1.6	9.2	(a)	1.4	0.2	1.6	(a)
Basic metal products	10.4	1.9	12.3	(a)	1.2	0.2	1.4	(a)
Fabricated metal products, other machinery and equipment	2.0	1.0	3.0	(a)	12.7	2.3	15.0	(a)
Transport equipment	2.2	1.1	3.3	(a)	14.2	2.9	17.1	(a)
Total metal products, etc.	8.4	1.7	10.1	(a)	18.9	3.2	22.1	(a)
Other manufacturing	2.6	0.6	3.2	(a)	1.2	0.2	1.4	(a)
Electricity, gas and water	17.1	2.1	19.2	(a)	8.7	1.6	10.3	(a)
Construction	19.1	1.2	20.3	(a)	12.1	1.8	13.9	(a)
Wholesale trade	14.0	2.3	16.3	(a)	13.2	2.0	15.2	(a)
Retail trade	4.2	1.0	5.2	(a)	17.3	2.7	20.0	(a)
Transport and storage	19.6	1.0	20.6	(a)	1.2	0.2	1.4	(a)
Communication	14.3	1.2	15.5	(a)	1.4	0.2	1.6	(a)
Finance, property and business services	8.0	1.0	9.0	(a)	1.0	0.2	1.2	(a)
Public administration and defence	6.7	0.6	7.3	(a)	0.4	0.2	0.6	(a)
Community services	9.2	1.6	10.8	(a)	1.2	0.2	1.4	(a)
Recreation, personal and other services	2.4	0.4	2.8	(a)	16.1	2.1	18.2	(a)
Total all industries	11.2	1.2	12.4	(a)	12.2	2.1	14.3	(a)

(a) Relative standard error greater than 30 per cent, or between 20 and 30 per cent and an actual standard error of more than \$1.00

